

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS

1. (CANCELLED)

2. (CURRENTLY AMENDED) ~~The method according to claim 1, wherein the step of determining the crank position includes the step of~~ A method for determining an angular position, at startup, of an internal combustion engine having a crankshaft and a camshaft each including a plurality of position indicating teeth, said method comprising the steps of:

determining a crankshaft position by sensing the plurality of position indicating teeth on said crankshaft; and

determining a crankshaft phase position, comprising the steps of:

setting a sample size of the engine cycle in each of two concurrent engine cycles;

assigning a predetermined amount of said plurality of teeth of said camshaft as marked teeth;

counting the marked teeth of said plurality of teeth on said camshaft found in said sample sizes; and

determining said crankshaft phase position according to the marked teeth appearing in said sample sizes.

3. (ORIGINAL) The method according to claim 2, wherein said predetermined amount of marked teeth is 3.

4. (ORIGINAL) The method according to claim 3, wherein the step of determining the crank position includes the step of identifying a single marked cam tooth within said sample sizes.

5. (CANCELLED)

6. ~~The method for determining the position of a crankshaft relative to a camshaft throughout an engine cycle of an internal combustion engine of claim 5, wherein the step of identifying an amount of said plurality of teeth includes the step of~~ A method for determining an angular position of an internal combustion engine having a rotating crankshaft and a rotating camshaft each including a plurality of position indicating teeth, said method comprising the steps of:

assigning a portion of a first and second concurrent engine cycle as a first and second reference window;

assigning a predetermined amount of said plurality of teeth as marked teeth;

identifying an amount of said plurality of marked teeth of said rotating camshaft within said first and second reference window; and

determining the position of said rotating crankshaft based on the amount of marked teeth identified within said first and second reference windows.

7. (CURRENTLY AMENDED) The method for determining the position of a rotating crankshaft relative to a rotating camshaft throughout an engine cycle of an internal combustion engine of claim 6, wherein said predetermined amount of marked teeth is 3.

8. (CURRENTLY AMENDED) The method for determining the position of a rotating crankshaft relative to a rotating camshaft throughout an engine cycle of an internal combustion engine of claim 7, wherein the step of determining the position of said rotating crankshaft includes the step of identifying a single marked tooth of said rotating camshaft in said first and second reference windows.
